

Plantwide Applicability Limitations (PALs)

Information Session on Federal NSR Reform
IDEM/Office of Air Quality
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Plantwide Applicability Limitations

52.21(aa)

• A PAL is an annual (facility-wide) emission limitation (12-month total, rolled monthly) under which the facility can make any changes without triggering NSR review for that pollutant.

- Pollutant-specific
- 10-year term.

• A PAL for VOC or NOx shall not be allowed in an extreme ozone nonattainment area.

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PAL Permit Application Requirements

As part of a permit application requesting a PAL, the owner or operator of a major stationary source shall submit the following information:

- A list of all emissions units, their size (major, significant, or small); the Federal and State applicable requirements, emission limitations and work practice requirements that each emissions unit is subject to.
- The baseline actual emissions for the emissions units at the source with supporting documentation. Baseline actual emissions are to include emissions associated with startup, shutdown, and malfunctions.
- The calculation procedures the owner or operator proposes to use to convert the monitoring system data to monthly emissions and annual emissions based on a 12-month rolling total.

[See 52.21(aa)(3)]

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Establishing a PAL

- At the time of setting a PAL, classify all emissions units as new or existing.
- Determine baseline actual emissions of all units:
 - For new units, add the PTE of the units
 - For existing units, pick a consecutive 24-month period (baseline period) in the preceding 10 years.
 - For existing units constructed prior to and during the baseline period, add average emissions adjusted to reflect current applicable requirements
 - For existing units that began construction after the baseline period, add the PTE of the units

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Establishing a PAL (Cont..d)

- Add the pollutant-specific significant emissions rate to the baseline actual emissions for the PAL pollutant;
- Subtract any emissions from emissions units that operated during the 24-month period and have since been permanently shut down; and
- Establish a step-down PAL if there are any requirements that have an effective date during the term of the PAL.

[See 52.21(aa)(4)]

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Reopening PAL permits

- Reviewing Authority shall reopen the PAL permit to:
 - Correct typographical or calculation errors made in setting the PAL.
 - Reduce the PAL to create emissions reductions for offset purposes.
 - Revise the PAL to reflect an increase in the PAL.

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Reopening PAL permits (Cont...d)

- Reviewing Authority may reopen the PAL permit to:
 - Reduce the PAL to reflect newly applicable Federal requirements with compliance dates after the PAL effective date. (However, PAL must be adjusted at TV or PAL permit renewal, whichever occurs first.)
 - Reduce the PAL consistent with any other requirement that the State may impose under its SIP.
 - Reduce the PAL if it determines that a reduction is necessary to avoid causing or contributing to a NAAQS or PSD increment violation

[See 52.21(a)(9)]

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Increasing a PAL

- Allowed if the increased emissions can not be accommodated under the PAL, even if all significant and major emissions units were to meet a BACT level of control.
- Emissions units causing the need for an increase (modified or new units) must go through major NSR.
- New PAL based on sum of:
 - Baseline actual emissions of small emissions units;
 - Baseline actual emissions of significant and major emissions units assuming a BACT level of control; and,
 - Allowable emissions of new or modified emissions units.

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PAL Renewal

- At least 6 months prior to but not earlier than 18 months from PAL expiration date, the O/O must submit an application for renewal or expiration.
- The reviewing authority shall provide a written rationale for the proposed PAL level for public comment.
- The new PAL level can not be higher than the existing PAL (unless PAL increase provisions are met) or the PTE of the source

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PAL Renewal (Cont...d)

- If baseline actual emissions plus significant level are = 80% of current PAL, then PAL may be renewed at current level.
- If baseline actual emissions plus significant level are < 80% then:
 - PAL may be established at a level that is more representative of baseline actual emissions, or a level that is appropriate based on air quality needs or other considerations.

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PAL Expiration

- Within the timeframe specified for PAL renewals, the source shall submit a proposed allocation of the PAL to each emissions unit.
- The Reviewing Authority shall decide whether and how the PAL will be distributed and issue a revised permit incorporating allowable limits for each emissions unit.
- Any subsequent physical or operational change at the source will be subject to major NSR review.

[See 52.21(aa)(9)]

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PAL Monitoring Requirements

- PAL permit must contain enforceable requirements to determine plantwide emissions (12-month total, rolled monthly).
- A source may use any of the following approaches:
 - Mass balance calculations for activities using solvents or coatings.
 - Continuous Emissions Monitoring Systems (CEMS).
 - Continuous Parameter Monitoring Systems (CPMS) or Predictive Emissions Monitoring Systems (PEMS).
 - Emissions Factors.
- If no monitoring data exists for an emissions unit for a time period, the source owner must report the maximum potential emissions without considering enforceable or operating emissions limitations, unless another method is specified in the permit.

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PAL Monitoring (Cont..d)

- Where an O/O cannot demonstrate a correlation between the monitored parameter(s) and the PAL pollutant emissions rate at all operating points of an emissions unit, the reviewing authority shall at the time of permit issuance:
 - Establish default value(s) for determining compliance with the PAL based on the highest potential emissions reasonably estimated at such operating points; or
 - Determine that the operation of the emissions unit in the absence of a correlation is a violation¹³ of the PAL.

PAL

Recordkeeping/Reporting

- The PAL permit shall require the O/O to maintain the following records for the duration of the PAL effective period plus 5 years:
 - A copy of the PAL permit application and any applications for revisions to the PAL; and
 - Each annual certification of compliance pursuant to Title V and the data relied on in certifying the compliance.
- The O/O shall submit semi-annual monitoring reports and prompt deviation reports to the Reviewing Authority in accordance with the applicable Title V permitting program.

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PAL Transition Requirements

The Administrator may not issue a PAL that does not comply with the requirements in paragraphs 52.21(aa)(1) through (15) after March 3,2003.

[See 52.21(aa)(15)]

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Alternative Rulemaking

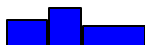
Examples of the types of changes IDEM may consider making are limiting the pollutants and source categories applicable to PALs, permit application requirements for obtaining a PAL, fee for a PAL permit, determination of PAL level, effective period of a PAL, PAL termination and renewal requirements, PAL increases and adjustments, PAL elimination of enforceable permit limits, and PAL testing, monitoring, reporting, and recordkeeping requirements.

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PAL EXAMPLE

Existing Source:
Actual Emissions= 150 tpy VOC
Potential Emissions = 400 tpy VOC

Plantwide Limit =
 $150 + 40 - 50 = 140$ tpy VOC



3 units 50 tpy actual emissions each during baseline period. 1 unit shutdown since then. Hence PAL level = $150 + 40 - 50 = 140$ tpy. Any change not subject to major NSR if plantwide emissions remain below 140 tpy VOC.

* 40 tpy is significant emissions rate for VOC

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